

IN THE CLAIMS

Please amend the claims as follows:

1-29. (Canceled).

30. (Currently Amended) A thin-film transistor comprising:

a source region and a drain region which are provided with an interval on an insulating substrate;

a gate insulator layer which is provided over the interval between the source region and the drain region;

a gate electrode which is provided on the gate insulator layer; and

a source electrode and a drain electrode which are provided on the source region and the drain region, respectively, wherein

the gate electrode comprises:

a first copper diffusion-preventing layer formed on the gate insulator layer;

a copper seed layer which is formed on the first copper diffusion-preventing layer and of which an undesired portion is removed, the undesired portion being a portion other than an area where the gate electrode is formed;

a copper layer formed on the copper seed layer by an electroless plating method; and

a second copper diffusion-preventing layer covering the exposed surface including the side, upper and lower surfaces of the multilayered structure having the copper seed layer and the copper layer, and wherein

the copper seed layer and the copper layer are surrounded by the first copper diffusion-preventing layer and the second copper diffusion-preventing layer, and have a forward tapered cross section.

31. (Previously Presented) The thin-film transistor according to claim 30, wherein the source electrode and the drain electrode comprises:

a third copper diffusion-preventing layer formed on the source region and the drain region;

a copper wiring layer formed on the third copper diffusion-preventing layer; and

a fourth copper diffusion-preventing layer formed to surround the copper wiring layer.

32. (Canceled).

33. (Currently Amended) The thin-film transistor according to claim 31, wherein a plurality of the thin-film transistors are arranged to form a matrix, and the thin-film transistors have scanning lines connected to the gate electrodes of the thin-film transistors, and signal lines connected to one of the source electrodes and the drain electrodes of the thin-film transistors, the signal lines being provided such that they are surrounded by the first ~~metal~~ copper diffusion-preventing layer and the second ~~metal~~ copper diffusion-preventing layer.

34. (Previously Presented) The thin-film transistor according to claim 30, wherein the insulating substrate is formed of one of glass, a quartz glass, ceramics, and a resin material.

35. (Currently Amended) A thin-film transistor comprising:  
a source region and a drain region which are provided with an interval on an insulating substrate:

a gate insulator layer which is provided over the interval between the source region and the drain region;

a gate electrode which is provided on the gate insulator layer; and

a source electrode and a drain electrode which are provided on the source region and the drain region, respectively, wherein

the gate electrode comprises:

a first copper diffusion-preventing layer formed on the gate insulator layer;

a copper seed layer which is formed on the first ~~metal~~ copper diffusion-preventing layer and of which an undesired portion is removed, the undesired portion being a portion other than an area where the gate electrode is formed;

a copper layer formed on the copper seed layer and having a forward tapered cross section; and

a second copper diffusion-preventing layer covering the exposed surface including the side, upper and lower surfaces of the multilayered structure having the copper seed layer, the copper layer and the first copper diffusion-preventing layer, and wherein

the copper seed layer and the copper layer are surrounded by the first copper diffusion-preventing layer and the second copper diffusion-preventing layer.

36. (Previously Presented) The thin-film transistor according to claim 35, wherein the insulating substrate is formed of one of glass, a quartz glass, ceramics, and a resin material.

37. (Previously Presented) A thin-film transistor comprising:

- a source region and a drain region which are provided with an interval on an insulating substrate;
- a gate insulator layer which is provided over the interval between the source region and the drain region;
- a gate electrode which is provided on the gate insulator layer; and
- a source electrode and a drain electrode which are provided on the source region and the drain region, respectively, wherein

the gate electrode comprises:

- a first copper diffusion-preventing layer formed on the gate insulator layer;
- a copper layer formed on the first copper diffusion-preventing layer; and
- a second copper diffusion-preventing layer covering the exposed surface including the side, upper and lower surfaces of the multilayered structure having the copper layer and the first copper diffusion-preventing layer, and wherein

the copper layer is surrounded by the first copper diffusion-preventing layer and the second copper diffusion-preventing layer, and has a forward tapered cross section.

38. (Previously Presented) The thin-film transistor according to claim 37, wherein the insulating substrate is formed of one of glass, a quartz glass, ceramics, and a resin material.

39. (New) A thin-film transistor comprising:

- a source region and a drain region which are provided with an interval on an insulating substrate;

a gate insulator layer which is provided over the interval between the source region and the drain region;

a gate electrode which is provided on the gate insulator layer; and

a source electrode and a drain electrode which are provided on the source region and the drain region, respectively, wherein

the gate electrode comprises:

a first copper diffusion-preventing layer formed on the gate insulator layer;

a nickel seed layer or a seed layer made of a metal material of group VIIIa including a cobalt seed layer which is formed on the first copper diffusion-preventing layer and of which an undesired portion is removed, the undesired portion being a portion other than an area where the gate electrode is formed;

a copper layer formed on the a nickel seed layer or a seed layer made of a metal material of group VIIIa including a cobalt seed layer; and

a second copper diffusion-preventing layer covering the exposed surface including the side, upper and lower surfaces of the multilayered structure having the nickel seed layer or a seed layer made of a metal material of group VIIIa including a cobalt seed layer and the copper layer, and wherein

the nickel seed layer or a seed layer made of a metal material of group VIIIa including a cobalt seed layer and the copper layer are surrounded by the first copper diffusion-preventing layer and the second copper diffusion-preventing layer, and have a forward tapered cross section.